# Construction Storm Water Presentation

Chattanooga Environmental Field Office

May 30, 2006



#### **Receive Complete NOI**

- Original signature
- Appropriate fee
- SWPPP



#### Department of Environment and Conservation Districts of Water Pollution Control

#### CONSTRUCTION ACTIVITY – STORM WATER DISCHARGES NOTICE OF INTENT (NOD)

Site Name:					Existing		
				Tracking N		10.	
Street Address or Location:					Start date:		
***************************************					Estimated end date:		
Site				Latinade:			
Description:					Longitude:		
County(ies):					Acres Disturbed:		
	show domed or solid blue !				istruction site?		
	a-site and may be impacted						
If an Aquanc Resource A	Uteration Permit has been	obtained for this site,	WEST IS	ne permit number:	ARAP penno	1200.:	
Receiving waters:							
Attach the SWPPP with t	the NOI SWPP	P Attached	Attach	a site location map	Map Attached		
Site Owner/Develope	r: (person, company, or legal	entity that has operation	nal or des	ign control over construc	ion plans and spe	cifications)	
Site Owner Developer Contact: (individual responsible for site)			Title or Position:				
Mailing Address:			Cirv:		State:	Zip:	
Phone:	tede:			E-mail:			
Optional Contact:			Title or Position:				
Address			- Circ		State:	1 -	
Address			City:		State:	Zip:	
Phone:			E-mail:				
( )							
Owner/Developer Certi:	fication (must be signed by	y president, vice-pres	ident or	equivalent, or ranking	elected official)		
assure that qualified persons	w that this document and all sel properly gathered and eval aponsible for gathering the i	tuated the information s	bettized.			ce with a system designed to	
complete. I am aware that th	ere are significant penalties fo	e submitting false inform	ntion subs mation in Signatur	mitted is, to the best of cloding the possibility of	my knowledge a	nd belief, true, accurate, and	
complete. I am aware that th	ere are significant penalties fo	e submitting false inform	mation, in	mitted is, to the best of cloding the possibility of	my knowledge a	nd belief, true, accurate, and unent for knowing violations.	
complete. I am aware that th Owner Developer name, print or	ere are significant penalties fo 1994	e submitting false inform	Signatur	mitted is, to the best of closing the possibility of	my knowledge a fine and imprison	nd belief, true, accurate, and unent for knowing violations.	
complete. I am aware that th Owner Developer name, print or Contractor(s) Certificat I certify under penalty of lar owner developer identified in am aware that this NOI.	ere are significant penalties for type tion (must be signed by pro- v that I have reviewed this do above, and/or my inquiry of a approved, makes the above- regulated. I am awaye that it	e submitting false information of the sident, vice-president cument, any attachment he person directly respedescribed construction.	t or equi s, and the mable for activity s	mitted is, to the best of choding the possibility of valent, or ranking elec- SWPPP referenced above assembling this NOL 11 subject to NPDES permit subject to NPDES permit	my knowledge a fine and imprison ted official) e. Based on my is believe the inform i number TNR10	and belief, true, accurate, and meent for knowing violations.  Day  Day  organity of the construction site union submitted is accurate. 1 0000, and that certain of my	
complete. I am aware that the Owner Developer name, point or Constructor(s) Certificat I certify under penalty of lar owner developer identified a maware that this NOI. I detailed activities on-tire are thosely	ere are significant penalties for 1994 tion (must be signed by pre- y that I have reviewed this of approved, makes the above- regulated. I am owner that the things of the properties of the second the second transfer of the second transfer.	e submitting false information of the sident, vice-president cument, any attachment he person directly respedescribed construction.	t or equi s, and the mable for activity s	mitted is, to the best of children the possibility of valent, or ranking elec- SWPPP referenced above assembling this NOL 11 doller to NPDES permit loding the possibility of	my knowledge a fine and imprison ted official) e. Based on my is believe the inform i number TNR10	and belief, true, accurate, and meent for knowing violations.  Day  Day  organity of the construction site union submitted is accurate. 1 0000, and that certain of my	
complete. I am aware that the Owner Developer name, point or Constructor(s) Certificat I certify under penalty of lar owner developer identified on am aware that MOI, if activities counte are thoreby and for friline to comply with Primary commence mane and sil	are are significant penalties for type  from (must be signed by pre- tion (must be signed by pre- type to the first previewed this do- bore, and or any unquery of it approved makes the above- regulated. I am aware that the three penant requirements.  down your or type	e submitting false information of the sident, vice-president cument, any attachment he person directly respedescribed construction.	t or equi s, and the mable for activity s alties, inc	mented is, to the best of changing the possibility of a valent, or ranking elec- sistency of the professional pro- assembling electron NPOES permit blocking the possibility of	my knowledge a fine and imprison ted official) e. Based on my is believe the inform i number TNR10	and belief, true, accurate, and insert for knowing violations. Day Day Experience of the construction in action submitted in accurate: 2000, and that certain of my muser for knowing violations	
complete. I am aware that the Owner Developer name, print or Contractor(s) Certificat I certify under penalty of list owners developer stemified of am aware that this NOL if the Contractor name and all other contractors contractor name and all other contractors name and all othe	are are significant peculities for 1999.  Ition (must be signed by pre- tion (must be signed by pre- tion (must be signed by pre- tion of the significant of the so- bottom of the significant of the significant of the so- templated. I am switch the slow- templated is maked the slow- templated in the so- tion of the significant of the later. pear or type	e submitting false information of the sident, vice-president cument, any attachment he person directly respedescribed construction.	signature  st or equities, and the mobile fee activity is alther, inc.  Signature	mented is, to the best of cheduing the possibility of  valent, or ranking elec- SWPPP referenced above  assembling this NOL II  buylet to NDESS permit  budget to NDESS permit  budget the possibility of  to the possibility of  the possibility of the possib	my knowledge a fine and imprison ted official) e. Based on my is believe the inform i number TNR10	and belief, time, accurate, accurate	
complexed I am aware that the Owner Developer nears, great or Countractor(s) Certificat I certify under parally of lin owners developer identified or owners developer identified or activities countries not not activities countries are thereby Primary countries nous and addre Ciber countries nous and addre Other countries nous and addre	are are signations penalties to the distribution of the signated by pro- served and a new processored data do shown, and or not mourts of all others, and or not mourts of an approved, makes it above- regulated. I can aware that to these present requirements. I have present or type we, prise or type	e submitting false information of the sident, vice-president cument, any attachment he person directly respedescribed construction.	mation, in Signatur  t or equit s, and the missle see activity s activity s Signatur  Signatur	mented is, to the best of cheduing the possibility of  valent, or ranking elec- SWPPP referenced above  assembling this NOL II  buylet to NDESS permit  budget to NDESS permit  budget the possibility of  to the possibility of  the possibility of the possib	my knowledge a fine and imprison ted official) e. Based on my is believe the inform i number TNR10	and belief, true, accurate, and manner for knowing violations.  Den  Den  Logistry of the construction tile  antice submaried is occurred:  DODO, and that certain of un- ment for knowing violations.  Den  Den	
complient Jam aware that the Owner-Developer name, great or Contractor(3) Certificat I carefy water peakly of lat owners developer identified a marker that fits NOOL if and for failure to comply with Paramey contractor name and address Other CONTRACTOR NAME AND OTHER CONTRACTOR NAME OTHER CONTRACTOR NAME AND OTHER CONTR	are are signaficiant penalties for  from (must be signaed by pre when I have perseased this do  shown, and or my inquire of a  shown and or my inquire of a  shown the shown  th	e submitting false information of the sident, vice-president cument, any attachment he person directly respedescribed construction.	mation, in Signatur  t or equit s, and the missle see activity s activity s Signatur  Signatur	unted is, to the best of cheding the possibility of cheding the possibility of valent, or ranking elections. SWEPP referenced the sustainable that assumability that sustainable that the SWEPP scheme of the possibility of t	my knowledge a fine and imprison ted official) e. Based on my is believe the inform i number TNR10	ad belief, true, accurate, as users for knowing violations.  Den  pagern of the construction the accurate to accurate to the accurate to accurate to 2000, and that certain of any construction that the accurate to accurate to 2000, and that certain of any country to accurate the knowing violations.  Den  Dena	
complete. I am aware that the Owner Developer name, pour or Contractor(s) Certificat I certify under penalty of lar owner developer identified a am aware that this NOI, if activities co-use are thoreby and for failure to comply with	are are signations penalties to the distribution of the signated by pro- served and a new processored data do shown, and or not mourts of all others, and or not mourts of an approved, makes it above- regulated. I can aware that to these present requirements. I have present or type we, prise or type	e submining false information of the control of the	mation, in Signatur  t or equit s, and the missle see activity s activity s Signatur  Signatur	mented is, to the best of cheduing the possibility of  valent, or ranking elec- SWPPP referenced above  assembling this NOL II  buylet to NDESS permit  budget to NDESS permit  budget the possibility of  to the possibility of  the possibility of the possib	my knowledge a fine and imprison ted official) e. Based on my is believe the inform i number TNR10	and belief, true, accurate, and manner for knowing violations.  Den  Den  Logary of the construction till accurate authorized the construction till accurate to 2000, and that certain of imprinced for accurate to 2000, and that certain of imprinced for knowing violations.  Den  Den	

continued on reverse



#### **Review of NOI**

- Original signature present?
- Contractor signature present?
- Water resources present at the project?
  - Are they on the "impaired" or "high quality waters" lists?
- Threatened or Endangered Species present?



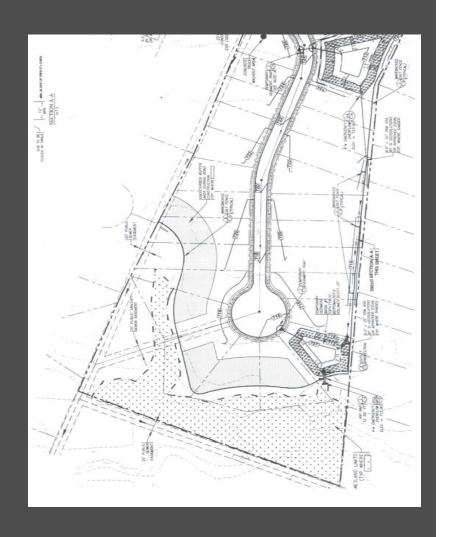
#### **Review of SWPPP**

- Narrative portion
  - Describes how project will be developed
  - Describes the phases of the project
  - -Provide adequate guidance
  - Includes calculations for sizing basins
  - Signed certification



### **Review of SWPPP/Plat Drawing**

- Cut and fill areas shown
- Water resources identified
- Sediment basins properly sized
- Buffer zones identified
- Steep slopes present
- Types of soils identified





### Pre-Permit - On-site Inspection Conducted

- Why take the time to conduct a site inspection?
  - Verify presence/absence water resources
  - Determine adjoining land uses
  - Provide "on the ground" guidance for needed
     SWPPP modifications
  - Past experiences have demonstrated that a site visit is needed – pre-permit effort reduces post-permit problems



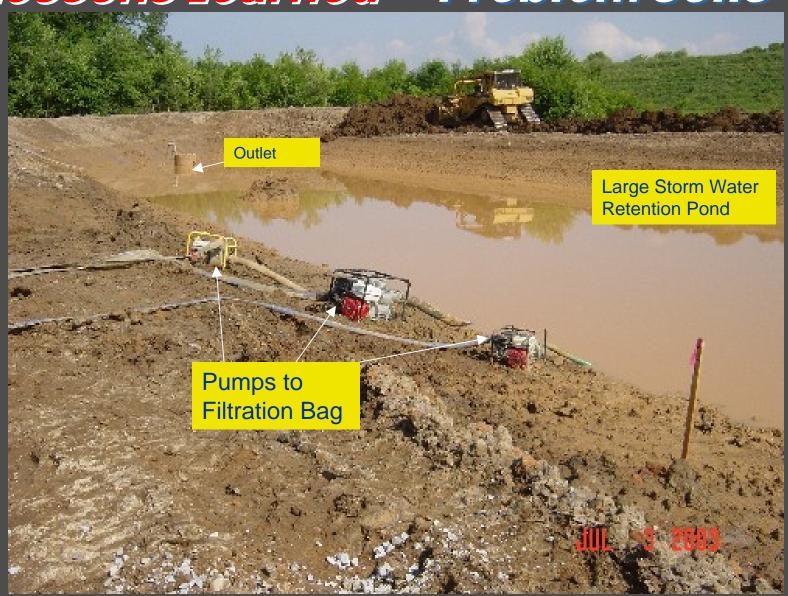














- THE SOLUTION REQUIRED CHEMICAL TREATMENT
  - Soils had to be tested
  - -Polymers formulated specific for the soil
  - Formulation changed as project entered different phases













































# **Lessons Learned** - Good SWPPP but Poor Implementation





# Lessons Learned - Good SWPPP but Poor Implementation



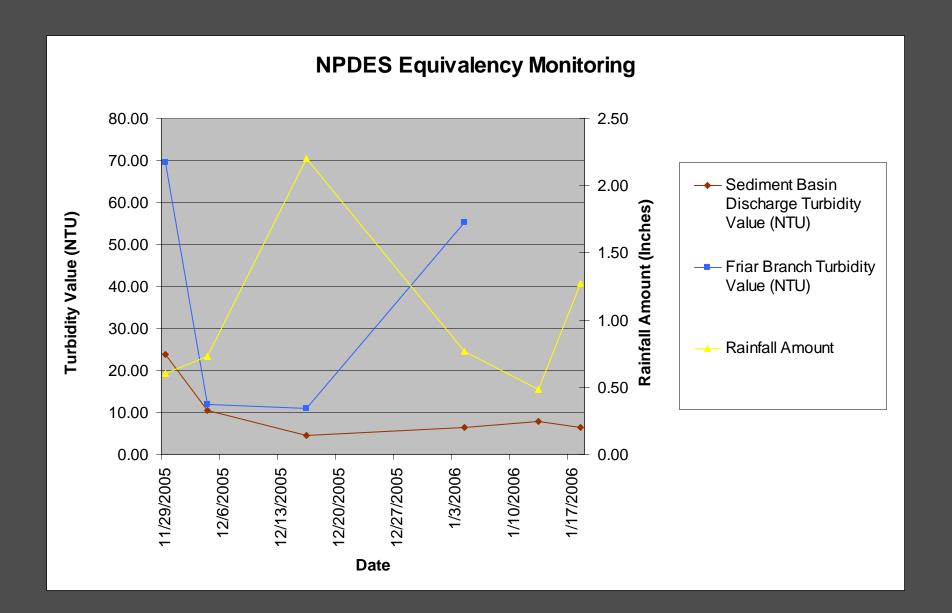


# **Buffer Zones or Equivalent Treatment**

What is "equivalent treatment?"

Date	Sediment Basin Discharge Turbidity Value (NTU)	Friar Branch Turbidity Value (NTU)	Rainfall Amount
11/29/05	23.70	69.60	0.60
12/04/05	10.50	NA	0.73
12/16/05	4.61	12.00	2.20
01/04/06	6.49	NA	0.77
01/13/06	7.95	11.00	0.48
01/18/06	6.34	55.30	1.27



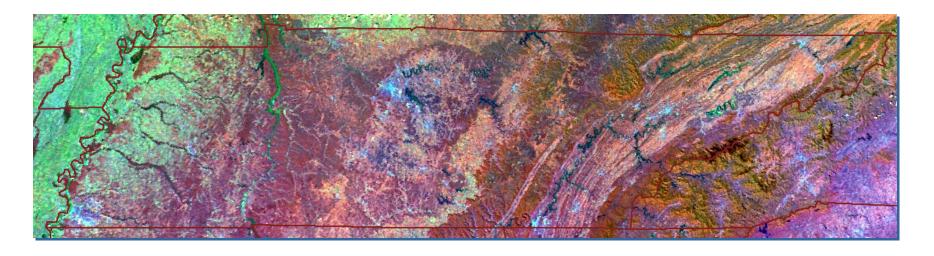


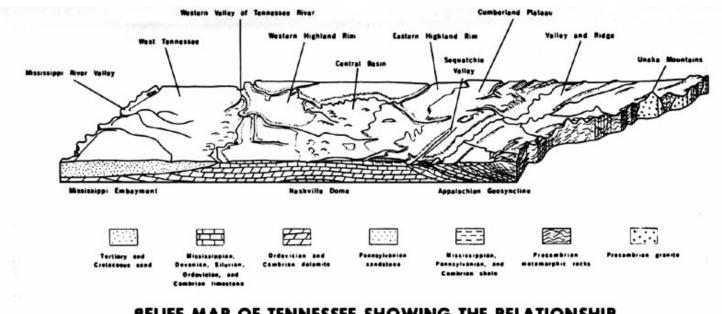


### Parallel Individual ARAPs & Construction Storm Water Permits

- Should they be issued together?
- Should the Construction Storm Water
   Permit be issued prior to the ARAP?







#### RELIEF MAP OF TENNESSEE SHOWING THE RELATIONSHIP OF MAJOR GEOLOGIC STRUCTURES TO PHYSIOGRAPHIC UNITS

Source: (Miller,1974).